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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/973,842	10/11/2001	Tetsuji Togawa	2001-1521A	7718

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EXAMINER

ROSE, ROBERT A

ART UNIT	PAPER NUMBER
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3723

DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 09/973,842	Applicant(s) TOGAWA ET AL.	
	Examiner Robert Rose	Art Unit 3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-12, 28-35, 37-50, 52-57 and 59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2, 8-11, 29, 44, 45, 48 and 52-55 is/are allowed.
- 6) ☒ Claim(s) 3-6, 12, 28, 30-35, 41-43, 46, 47, 49, 50, 56, 57 and 59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 7, 13-27, 36, 51, 58, and 60-62 have been canceled.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3-6, 28, 30-35, 57 and 59 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Chen et al(US 6080050). Chen et al('050) discloses a substrate holding apparatus comprising all of the subject matter set forth in Applicant's claims above. Chen et al('050) discloses a wafer carrier having an inflatable bag behind a wafer-backed membrane, for providing pressure across the back of the wafer. Note top ring body(120), elastic pad(118), support member(104), contact member(166)(168), first pressure chamber(162), second pressure chamber(188), and fluid source(192).
4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 12, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al('050). With regard to claims 12, and 41 the use of an insulating material for the support

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member to prevent thermal deformation of the support and non-uniform polishing would have been obvious to those of ordinary skill in the art, since it is known in the art that components at different temperatures create unwanted deformation in the wafer being polished.

6. Claims 42-43, 46-47, 49-50 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shamouilian et al. Shamouilian et al discloses a wafer carrier having multiple enclosed bags located behind a membrane to independently apply differential pressure behind the wafer(Figure 4). To mount the elastic bag membranes to the lower surface of the support member in Shamouilian et al to prevent shifting of the bag during periods of inflation and deflation, would have been an obvious mechanical expedient to those of ordinary skill in the art.
7. Claims 2, 8-11, 29, 37-40, 44-45, 48, and 52-55 are allowed.
8. Applicant's arguments filed March 10, 2004 have been fully considered but they are not persuasive. Applicant's new limitation in the independent claims, of the retainer ring having a central opening and a through-hole is deemed sufficiently broad as to still be readable on the art of record. Note in Chen et al('050) that the central opening may be arbitrarily defined as the central recess formed by the annular ledge on the upper surface of the retainer ring(210), and the through hole is located radially inwardly of this recess. In a similar manner, the Shamouilian et al reference is deemed to disclose a central opening formed by annular ledge(120) and a central through hole located radially inwardly from the ledge and extending entirely through. However, it appears that a further recitation of the through hole extending radially from an inner surface to an outer surface of the retaining ring would define over both Chen et al('050) and Shamouilian et al.

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9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication should be directed to Robert Rose at telephone number (703) 308-1360.

rr

May 28, 2004.



ROBERT A. ROSE
PRIMARY EXAMINER
ART UNIT 323